Update on FY 2023-2032 Ten-Year Transportation Improvement Plan

SNHPC TAC Meeting
September 17, 2020

Nathan Miller, AICP
Deputy Executive Director
Ten-Year Plan Overview

- Pursuant to RSA 228:99 and RSA 240, the SNHPC works collaboratively with the NHDOT to develop the Ten-Year Transportation Improvement Plan (TYP).
  - The TYP is updated biennially.
  - The SNHPC has just completed its solicitation for projects for the FY 2023-2032 TYP.
Regional Ten-Year Plan
Allocations for this Update Cycle

• NHDOT has allocated $50 Million for regional projects in this Ten-Year Plan update cycle.

• New projects would (generally) be programmed for construction in FY 2031 or FY 2032.

• The SNHPC’s estimated allocation is $8.554 Million.

<table>
<thead>
<tr>
<th>RPC</th>
<th>FAE Lane Miles</th>
<th>%</th>
<th>Population</th>
<th>%</th>
<th>50% By FAE Lane Miles</th>
<th>50% Population</th>
<th>Total available for 2031-2032 Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td>NCC</td>
<td>1,536</td>
<td>18%</td>
<td>82,350</td>
<td>6%</td>
<td>$4,530,229.37</td>
<td>$1,575,857</td>
<td>$6,106,086</td>
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<tr>
<td>UVSRPC</td>
<td>721</td>
<td>9%</td>
<td>85,867</td>
<td>7%</td>
<td>$2,127,026.04</td>
<td>$1,643,159</td>
<td>$3,770,185</td>
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<tr>
<td>LPC</td>
<td>956</td>
<td>11%</td>
<td>119,725</td>
<td>9%</td>
<td>$2,818,612.00</td>
<td>$2,291,068</td>
<td>$5,109,680</td>
</tr>
<tr>
<td>SWRPC</td>
<td>808</td>
<td>10%</td>
<td>99,566</td>
<td>8%</td>
<td>$2,383,931.58</td>
<td>$1,905,304</td>
<td>$4,289,235</td>
</tr>
<tr>
<td>CNHRPC</td>
<td>764</td>
<td>9%</td>
<td>113,248</td>
<td>9%</td>
<td>$2,252,871.89</td>
<td>$2,167,124</td>
<td>$4,419,996</td>
</tr>
<tr>
<td>SNHPC</td>
<td>1,173</td>
<td>14%</td>
<td>266,278</td>
<td>20%</td>
<td>$3,458,115.57</td>
<td>$5,095,520</td>
<td>$8,553,635</td>
</tr>
<tr>
<td>NRPC</td>
<td>759</td>
<td>9%</td>
<td>205,765</td>
<td>16%</td>
<td>$2,238,359.83</td>
<td>$3,937,538</td>
<td>$6,175,897</td>
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<tr>
<td>RPC</td>
<td>1,040</td>
<td>12%</td>
<td>188,521</td>
<td>14%</td>
<td>$3,066,281.25</td>
<td>$3,607,555</td>
<td>$6,673,836</td>
</tr>
<tr>
<td>SRPC</td>
<td>720</td>
<td>8%</td>
<td>145,112</td>
<td>11%</td>
<td>$2,124,572.47</td>
<td>$2,776,876</td>
<td>$4,901,449</td>
</tr>
<tr>
<td>Totals</td>
<td>8,477</td>
<td>100%</td>
<td>1,306,432</td>
<td>100%</td>
<td>$25,000,000</td>
<td>$25,000,000</td>
<td>$50,000,000</td>
</tr>
</tbody>
</table>
• **Week of July 27, 2020** – TYP solicitation correspondence sent to SNHPC communities.

• **Tuesday, September 15, 2020** – TYP project submissions due to the SNHPC.

• **September to October 2020** – Candidate projects undergo review by SNHPC on-call engineering consultant and “shortlisting” by the SNHPC TAC and MPO.

• **November 6, 2020** – “Shortlist” of candidate projects due to NHDOT.

• **December 2020 to February 2021** – NHDOT review of candidate projects.

• **March 31, 2021** – Final regional priorities due to NHDOT.
Ten-Year Plan Project Solicitation

The SNHPC received the following responses from the FY 2023-2032 TYP project solicitation, which closed on September 15, 2020.

- **One** (1) existing TYP project was identified as requiring additional funding.

- **One** (1) existing TYP project has been proposed for advancement to an earlier year of construction.

- **Five** (5) new projects were proposed for consideration in this TYP update.
Potential FY 2023-2032 Ten-Year Plan Projects

TOWN OF BEDFORD

Supplemental Funding for U.S. Route 3 (South River Road) Widening/Complete Streets Improvements from Hawthorne Dr. to Manchester Airport Access Rd.

- SNHPC added the project in the FY 2017-2026 Ten-Year Plan update.

- SNHPC added supplemental funding of $7.29 Million during the FY 2021-2030 Ten-Year Plan update.

- Project is currently programmed for $13.27 Million (in year of expenditure dollars) with construction beginning in FY 2026.

- Project is estimated to cost $16.40 Million (in 2019 dollars).
Potential FY 2023-2032 Ten-Year Plan Projects

TOWN OF BEDFORD

Supplemental Funding for U.S. Route 3 (South River Road) Widening/Complete Streets Improvements from Hawthorne Dr. to Manchester Airport Access Rd.

Improves a bottleneck on the National Highway System (NHS) and includes complete streets elements.

Proposed Typical Section

• 4 – 12’ travel lanes with 14’ raised median
• 5’ shoulders on outside with 2’ along median
• 5’ paved sidewalk on east side with 7’ grass panel on west side
Potential FY 2023-2032 Ten-Year Plan Projects

TOWN OF DEERFIELD

Convert Intersection of NH Route 107/Candia Road/Church Street to a Roundabout

Photo Source: Google

Photo Source: Google
Potential FY 2023-2032 Ten-Year Plan Projects

**TOWN OF DEERFIELD**

Convert Intersection of NH Route 107/Candia Road/Church Street to a Roundabout

• This project is included in the current SNHPC Metropolitan Transportation Plan as a Deerfield Town Center improvement project but has not previously been submitted for Ten-Year Plan consideration.

• The project will be assigned to the SNHPC’s on-call engineering firm for project scoping and cost estimating.

  • Similar roundabout conversions in New Hampshire generally cost between $1.0-$1.5 Million.
Potential FY 2023-2032 Ten-Year Plan Projects

TOWN OF DERRY

Extension of Derry Rail Trail from Madden Road (i.e. Exit 4A Connector Road) to the Londonderry Town Line

• This 1,900’ extension of the Derry Rail Trail is the final section to be completed within the Town.

• There has been extensive local and regional planning justification for the completion of this trail as part of the larger “Granite State Rail Trail” effort.

• The project will be assigned to the SNHPC’s on-call engineering firm for project scoping and cost estimating.
Potential FY 2023-2032 Ten-Year Plan Projects

TOWN OF DERRY

Extension of Derry Rail Trail from Madden Road (i.e. Exit 4A Connector Road) to the Londonderry Town Line

- A portion of this trail gap is privately-owned and may require ROW acquisition.

- Depending on the cost estimate, the project may also qualify for Transportation Alternatives Program (TAP) consideration.
Potential FY 2023-2032 Ten-Year Plan Projects

TOWN OF LONDONDERRY

Advance the NH Route 28/128 Intersection Improvement Project

Photo Source: Google

Photo Source: Google
Potential FY 2023-2032 Ten-Year Plan Projects

**TOWN OF LONDONDERRY**

*Advance the NH Route 28/128 Intersection Improvement Project*

- SNHPC added the project in the FY 2019-2028 Ten-Year Plan update.
- Project is currently programmed for $1.67 Million (in year of expenditure dollars) with construction in FY 2027.
- Project advancements are difficult to accomplish without offsetting concessions (e.g. delaying another project or adding local funding).
- The project will be assigned to the SNHPC’s on-call engineering firm for updated scoping to confirm the current cost estimate.
CITY OF MANCHESTER

I-293/Second Street Engineering Study

• Following the completion of the Exit 6 and 7 reconstruction project, the SNHPC’s regional travel demand model shows that Second Street and I-293 between Exit 5 and the NH Route 101 interchange will continue to be a bottleneck with substantial capacity issues.

• The operations of I-293 and Second Street are inextricably linked in this area, with Exit 4 being a primary concern.

• Enhancing alternatives for bicycle and pedestrian mobility is also a concern in this corridor.
The NHDOT has also noted the need for an engineering study in this area to identify “the next wave of Turnpike needs such as potential improvements to the FEET in Manchester from NH101 to Exit 5 that is at capacity during peak hours of the weekday.”

The NHDOT has previously estimated the cost of such a study to be approximately $2.0 Million, and SNHPC is working with NHDOT to verify whether that figure is still accurate.
This project entails operational and capacity improvements at three (3) intersections in the vicinity of I-93 Exit 8 in Manchester.

- I-93 Northbound Ramps
- I-93 Southbound Ramps
- Bridge Street/NH Route 28A (Mammoth Road)
Potential FY 2023-2032 Ten-Year Plan Projects

CITY OF MANCHESTER

I-93 Exit 8 Interchange Improvements

- Based on a recent traffic impact analysis, the intersections are projected to exceed a volume/capacity ratio of 1.0 in the coming years.

- A combination of operational improvements (e.g. adaptive signal control) and capacity improvements are envisioned at the intersections.

- The project will be assigned to the SNHPC’s on-call engineering firm for project scoping and cost estimating.
Potential FY 2023-2032 Ten-Year Plan Projects

CITY OF MANCHESTER

Improvements at the Intersections of Hooksett Road/Campbell Street and Campbell Street/Hamel Drive

This project includes the following two elements:

- Capacity improvements at the intersection of Hooksett Rd. (U.S. Route 3) and Campbell St.
- Reconfiguration (roundabout conversion) at the intersection of Campbell St./Hamel Dr.

Map Source: City of Manchester
Potential FY 2023-2032 Ten-Year Plan Projects

CITY OF MANCHESTER

Improvements at the Intersections of Hooksett Road/Campbell Street and Campbell Street/Hamel Drive

Proposed Improvements to Hooksett Rd./Campbell St.  
Proposed Improvements to Campbell St./Hamel Dr.
Potential FY 2023-2032 Ten-Year Plan Projects

CITY OF MANCHESTER

Improvements at the Intersections of Hooksett Road/Campbell Street and Campbell Street/Hamel Drive

• Substantial preliminary engineering work has previously been completed for this project by Hoyle, Tanner & Associates.

• Depending on the cost estimate, the project may also qualify for Congestion Mitigation and Air Quality (CMAQ) program consideration.

• The project will be assigned to the SNHPC’s on-call engineer to peer review the previously developed plans and provide a current cost estimate based on those plans.
Next Step: Engineering Review

• The SNHPC is close to finalizing its selection of an on-call engineering consultant to perform TYP project scoping and cost estimating work.

• Project scoping/cost estimating needed for this cycle includes:
  
  • **Deerfield** - NH Route 107/Candia Rd./Church St. Roundabout
  • **Derry** – Rail Trail Expansion from Madden Road to Londonderry T/L
  • **Londonderry** – NH Route 28/128 Intersection Improvements
  • **Manchester** – I-93 Exit 8 Interchange Improvements
  • **Manchester** – Hooksett Rd./Campbell St. and Campbell St./Hamel Dr. Intersection Improvements (Peer Review and Cost Estimate Only)

• Existing cost estimates will be utilized for the **Bedford** (U.S. Route 3) and **Manchester** (I-293/Second Street Engineering Study) projects.
Next Step: “Shortlisting” of Projects

- NHDOT has requested that a “shortlist” of projects be submitted by early November 2020.
  - The shortlist is not a final set of priorities, but rather an early notification to NHDOT about the projects our region is considering for this TYP update.
  - In order to develop such a “shortlist” of projects, we will need to begin evaluating projects according to the TYP evaluation criteria previously discussed at the June and July TAC meetings as soon as possible.
## Ten-Year Plan Project Evaluation Criteria

<table>
<thead>
<tr>
<th>Ten-Year Plan Criteria</th>
<th>Definition</th>
<th>SNHPC Weighting (2023-2032 TYP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic Development</td>
<td><strong>Local and Regional Economic Dev.</strong> The degree to which a project supports economic development needs and opportunities at the local and regional level.</td>
<td>6.29%</td>
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<td></td>
<td><strong>Freight Movement</strong> The degree to which the project impacts the movement of goods.</td>
<td>5.73%</td>
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<tr>
<td>Equity, Environmental Justice, and Accessibility</td>
<td><strong>Equity and Environmental Justice</strong> The degree to which a project benefits traditionally-underserved populations.</td>
<td>4.26%</td>
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<tr>
<td></td>
<td><strong>Accessibility</strong> The degree to which a project ensures accessibility by all potential users.</td>
<td>7.44%</td>
</tr>
<tr>
<td>Mobility</td>
<td><strong>Mobility Need and Performance</strong> A historical analysis of the mobility need and performance (e.g. level of congestion, delay, etc) of a location for all modes.</td>
<td>7.44%</td>
</tr>
<tr>
<td></td>
<td><strong>Mobility Intervention</strong> A forward-looking analysis of how interventions proposed as part of a project would improve the mobility performance for all modes.</td>
<td>6.63%</td>
</tr>
<tr>
<td>Natural Hazard Resiliency</td>
<td><strong>Hazard Risk</strong> An analysis of the natural hazard risks (i.e. flood history) to a transportation facility.</td>
<td>5.41%</td>
</tr>
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<td></td>
<td><strong>Hazard Mitigation</strong> A forward-looking analysis of how the natural hazard mitigation measures proposed as part of a project would reduce hazard risks.</td>
<td>5.82%</td>
</tr>
<tr>
<td>Network Significance</td>
<td><strong>Traffic Volume</strong> The extent to which transportation infrastructure is currently utilized by vehicles, bicycles, and pedestrians.</td>
<td>8.79%</td>
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<td></td>
<td><strong>Facility Importance</strong> The importance of the facility to the local and the regional transportation system (e.g. available of alternate routes, etc).</td>
<td>8.05%</td>
</tr>
<tr>
<td>Safety</td>
<td><strong>Safety Performance</strong> A historical analysis of the safety performance (i.e. crash history) of a location over the past five (5) year period for all modes.</td>
<td>7.44%</td>
</tr>
<tr>
<td></td>
<td><strong>Safety Measures</strong> A forward-looking analysis of how the countermeasures proposed as part of a project would improve safety performance for all modes.</td>
<td>9.81%</td>
</tr>
<tr>
<td>State of Repair</td>
<td><strong>State of Repair</strong> The degree to which the project improves infrastructure condition in the project area (e.g. pavement condition, bridge condition, etc.).</td>
<td>8.34%</td>
</tr>
<tr>
<td></td>
<td><strong>Maintenance</strong> The degree to which the project impacts NHDOT and/or municipal maintenance requirements.</td>
<td>4.20%</td>
</tr>
<tr>
<td>Support</td>
<td><strong>Support</strong> The degree of documented support for the project at the local, regional, or statewide level.</td>
<td>4.33%</td>
</tr>
</tbody>
</table>
Next Step: TAC Project Evaluation Subcommittee

• To assist in evaluating proposed projects, staff requests that the TAC appoint a Project Evaluation Subcommittee for this purpose.

• This approach has worked well in previous SNHPC TYP update cycles.

• The Subcommittee will evaluate the projects according to the criteria and develop recommended priorities for the full TAC’s consideration.

• The Subcommittee should be comprised of “disinterested” TAC members (i.e. representing communities or agencies that did not submit project proposals).
Questions?